

**IN THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 1-81. (Canceled)

1       82. (Currently Amended) A method for providing printer recognition and  
2 management of a print job entity, comprising:

3           establishing, within a printer, a repository of attributes and status information  
4 associated with each print job that passes through a printer system;

5           ~~providing an interface to a plurality of components to allow access to the attributes~~  
6 ~~and status information in the repository by the plurality of components; and~~

7           establishing a job monitor, within the printer, for managing the repository of  
8 attributes and status information associated with each print job, ~~for responding to a call by a~~  
9 ~~printer component and for managing interactions between printer components in order to~~  
10 ~~control the processing of the job; and~~

11           providing an interface to the job monitor for enabling communication between the job  
12 monitor and a plurality of printer components with the printer, the interface allowing the  
13 printer components to access the job monitor to request access to the attributes and status  
14 information in the repository managed by the job monitor;

15           wherein the establishing the job monitor further comprises enabling the job monitor  
16 to respond to a call by a printer component made by the printer component through the  
17 interface and for managing interactions between printer components accessing the job  
18 monitor through the interface in order for the job monitor to control the processing of the  
19 print job.

1       83. (Currently Amended) An apparatus for providing printer recognition and  
2       management of a print job entity, comprising:

3            a repository of attributes and status information associated with each print job that  
4       passes through a printer system, the repository being disposed within a printer;

5            an interface to a plurality of components, the interface providing access to the  
6       attributes and status information in the repository by the plurality of components; and  
7            a job monitor, disposed within the printer, for managing the repository of attributes  
8       and status information associated with each print job, for responding to a call by a printer  
9       component and for managing interactions between printer components in order to control the  
10      processing of the job; and

11           an interface, coupled within the printer to the job monitor, the interface enabling  
12       communication between the job monitor and a plurality of printer components of the printer,  
13       the interface allowing the printer components to access the job monitor to request access to  
14       the attributes and status information in the repository managed by the job monitor;

15           wherein the job monitor further enables the job monitor to respond to a call by a  
16       printer component made by the printer component through the interface and for managing  
17       interactions between printer components accessing the job monitor through the interface in  
18       order for the job monitor to control the processing of the print job.

1       84. (Currently Amended) The apparatus of claim 83, wherein the interface  
2       provides an ability for printer components to process a job according to requirements of the  
3       printer components component and reports job attributes and processing status of the job for  
4       common access by other printer components.

1           85. (Currently Amended) The apparatus of claim 83, wherein the interface  
2   provides a printer component access to common variables, the printer components presenting  
3   the job attributes or status information to the interface.

1           86. (Currently Amended) The apparatus of claim 83, wherein the a repository and  
2   the interface are provided by the a job monitor, the job monitor further providing logical  
3   views to obtain a next job to be processed by a printer component and to obtain a list of all  
4   jobs in the order that they are processed.

1           87. (Previously Presented)       The apparatus of claim 83, wherein the job  
2   monitor is used to update attributes of print jobs.

1           88. (Currently Amended) The apparatus of claim 87, wherein the job monitor  
2   determines a next job to process, the printer component determining valid states for the a  
3   call.

1           89. (Currently Amended) The apparatus of claim 87, wherein the job monitor  
2   includes a multiplexor, and wherein the valid states for the a multiplexer further comprise:  
3           an unknown state for when a job identification is requested; and  
4           a pull print queue state for the job when the job is stop-flowed at a port connection  
5   manager waiting for access to the printer because a print engine is processing another job;  
6           wherein the multiplexer receives the job and selects to place the job in a job must be  
7   spooled state, a may spool state or must print state.

1           90. (Currently Amended) The apparatus of claim 89, wherein the multiplexer  
2 routes the incoming job to ~~the a~~ print engine or ~~the a~~ spooler according to which becomes  
3 available first when the job is a job that may spool.

1           91. (Previously Presented)       The apparatus of claim 83 further comprising a  
2 spooler.

1           92. (Currently Amended) The apparatus of claim 91, wherein the spooler  
2 receiving a job identification request, enters a not spooled state when the spooler has not yet  
3 processed the job, enters a spooling, can despool state when the job is being written to the  
4 ~~spool deviee spooler~~ thereby allowing the job to be selected for despooling at any time,  
5 enters a spooling, despooling state when the job is being written to the spool device and is  
6 also being read from the spool device, enters a waiting to despool state when the end of the  
7 job has been received, enters a despooling state when the job is being read from the spool  
8 device and written to ~~the a~~ multiplexer and enters the done state when the job is finished  
9 being processed by the spooler.

1           93. (Previously Presented)       The apparatus of claim 83 further comprising an  
2 interpreter.

1           94. (Previously Presented)       The apparatus of claim 93, wherein the  
2 interpreter enters a waiting for data state when job processing by the interpreter has started,  
3 enters an interpreting state when the job is being processed by the interpreter and enters a  
4 done state when the job is finished being processed by the interpreter.

1           95. (Currently Amended) The apparatus of claim 83, wherein the ~~a~~ repository and  
2    ~~the~~ interface are provided by ~~the~~ a job monitor, the job monitor further handling incoming  
3    jobs with a port connection manager, wherein the port connection manager calls to a  
4    multiplexer to process the job.

1           96. (Currently Amended) The apparatus of claim 83, wherein the ~~a~~ repository and  
2    ~~the~~ interface are provided by ~~the~~ a job monitor, the job monitor further deciding whether to  
3    assign a job to the printer, whether to assign a job to a spooler, whether the job must wait for  
4    available resources or whether the job cannot be processed.

1           97. (Currently Amended) The apparatus of claim 83, ~~wherein further comprising~~  
2    a ~~the~~ job monitor ~~to fetch~~ ~~fetches~~ jobs in an order that is dependent upon the calling ~~printer~~  
3    component.

1           98. (Currently Amended) The apparatus of claim 97, ~~wherein further comprising~~  
2    a ~~the~~ job monitor ~~for examining~~ ~~examines~~ process job states and variables to determine the  
3    correct response and to return an appropriate job identification for a ~~the~~ job.

1           99. (Currently Amended) The apparatus of claim 83, ~~wherein further comprising~~  
2    a ~~the~~ job monitor ~~for providing~~ ~~provides~~ a common method of accessing ~~the~~ variables  
3    associated with a ~~the~~ job for the ~~printer~~ components.

1           100. (Currently Amended) An article of manufacture comprising a program  
2       storage medium readable by a computer, the medium tangibly embodying one or more  
3       programs of instructions executable by the computer to perform a method for providing  
4       printer recognition and management of a print job entity, the method comprising:  
5           establishing a repository of attributes and status information associated with each  
6       print job that passes through a printer system;  
7           ~~providing an interface to a plurality of components to allow access to the attributes~~  
8       ~~and status information in the repository by the plurality of components; and~~  
9           establishing a job monitor, within the printer, for managing the repository of  
10       attributes and status information associated with each print job, ~~for responding to a call by a~~  
11       ~~printer component and for managing interactions between printer components in order to~~  
12       ~~control the processing of the job; and~~  
13           providing an interface to the job monitor for enabling communication between the job  
14       monitor and a plurality of printer components with the printer, the interface allowing the  
15       printer components to access the job monitor to request access to the attributes and status  
16       information in the repository managed by the job monitor;  
17           wherein the establishing the job monitor further comprises enabling the job monitor  
18       to respond to a call by a printer component made by the printer component through the  
19       interface and for managing interactions between printer components accessing the job  
20       monitor through the interface in order for the job monitor to control the processing of the  
21       print job.